

Remarks/Arguments:

These remarks are directed to the Office Action of February 26, 2010. Paragraph numbers in these remarks refer to the published application U.S. Pub. No. 2007/0027032.

Claims 7, 8, and 17-32 are pending in the application and were examined. Applicants have canceled claims 14, 15, 26, 27, 31, and 32 without prejudice to prosecution of their subject matter in other patent applications, amended claims 7, 8, 18-21, 23-25, 28, and 29, and added new claims 33-39. Support for the amendments and new claims can be found throughout the specification, for example: paragraphs [0046]-[0060], [0087]-[0089], [0104]-[0106], and Tables 1, 2, 3, 4, and 2-2. The amendments introduce no new matter.

Claim Rejections Under 35 U.S.C. § 102

Claims 7, 8, 14, 15, 17, 21, 22, and 26-30 stand rejected under 35 U.S.C. § 102(b) as anticipated by Smith (WO 00/04778) or Smith (WO 01/26465). Applicants respectfully submit, however, that the pending claims are patentable over the art of record for at least the reasons set forth below.

Smith '778 discloses application of LCOs to seeds and the effects of LCOs on seedling germination and emergence. Smith '465 teaches the effects of LCOs on photosynthesis in nonleguminous plants.

Independent claim 7 recites a composition for increasing an early flower number or fruit number in a non-leguminous plant. Claim 7 requires a concentration of an LCO "effective to increase the flower number or fruit number in the plant within four weeks following an application of the composition to the plant." Support for claim 7 may be found, for example, in paragraph [0053] and Tables 1 and 2 of the application. Neither of the Smith references presents data or evidence on the timing of fruiting or flowering in non-legume plants (i.e., an increase in "flower number or fruit number in the plant within four weeks"), and therefore both fail to teach all the elements of claim 7.

Independent claims 8 and 21 recite methods for increasing an early fruit number and an early flower number, respectively, in a non-leguminous plant. Each of claims 8 and 21 requires an LCO "at a concentration of from about 1 ng to about 1000 ng per plant." Support for claims 8 and 21 may be found, for example, in Tables 6 and 7 of the application. Neither of the Smith

references discloses ng amounts of LCO, and therefore both fail to teach all the elements of claims 8 and 21.

Accordingly, for the reasons set forth above, the Smith references fail to teach every element of independent claims 7, 8, and 21. Claims 14, 15, 17, 21, 22, and 26-30 include all the features of claims 7, 8, and 21, from which they depend. Therefore, Applicants respectfully request that the Section 102(b) rejections of claims 7, 8, 14, 15, 17, 21, 22, and 26-30 be withdrawn.

Claim Rejections Under 35 U.S.C. § 103

Claims 18-20, 23-25, and 30 stand rejected under Section 103(a) as unpatentable over Smith (WO 00/04778) or Smith (WO 01/26465). These claims depend from claims 8 and 21. As discussed above, neither of the Smith references discloses the use of LCOs to increase an early fruit number or flower number, let alone the amounts of LCOs effective for the increase. Therefore, even in combination, the two Smith references fail to disclose all the elements of claims 18-20, 23-25, and 30.

Furthermore, the data show that the claimed methods of claims 8 and 21 have unexpected properties not present in the cited art. M.P.E.P. § 2145. Applicants have demonstrated that applying an LCO in the claimed concentration range of "from about 1 ng to about 1000 ng per plant" results in increased early fruit number and early flower number. For example, the data presented in paragraphs [0052] and [0053], and Tables 1 and 2, demonstrate early increases in fruit and flower numbers in tomato plants following applications of 50 ng and 75 ng doses of an LCO. The application of an LCO in a concentration range of about 1 ng to about 1000 ng per plant, and the resulting increases in early fruit number and early flower number, are not suggested by the cited references, and are otherwise not provided for in the record. One of ordinary skill in the art would not have been motivated at the time the invention was made to apply an LCO to a plant at an amount recited in the pending claims with a reasonable expectation of success in increasing the early fruit number or early flower number of the plant.

For all of the reasons discussed above, claims 18-20, 23-25, and 30, which depend from claims 8 and 21, are patentable over the Smith references, either alone or in combination. Therefore, Applicants respectfully request that the Section 103(a) rejection of these claims be withdrawn.

Conclusion

Applicants respectfully request reconsideration of the rejections in view of the amendments and remarks submitted herewith. Applicants submit that the pending claims are in condition for allowance, which action is respectfully requested.

Respectfully submitted,



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